U. S. Steel
Clairton Works
400 State Street
Clairton, PA 15025-1855

August 25, 1999

Allegheny County Health Department
Bureau of Air Pollution Control
301 39th Street
Pittsburgh, PA 15201-1891

Attn: Dr. Roger Westman Ph. D.
Air Quality Manager

Re: Clairton Works -- Pushing and Travel - Batteries 19 and 20

Dear Dr. Westman,

The following is a monthly report of our efforts to reduce pushing and travel emissions on 19 and 20 Batteries. This report is as promised in our meeting of June 8, 1999. It is our intention to bring these Batteries monthly composite pushing and travel performance too greater than 90% by October 1999 and the quarterly composite performance too greater than 94% by the first quarter of 2000. The composite performance is composed of pushing and travel observations made twice per day. The time of observation is set by random number generation.

Our efforts are split into two categories -- Pushing Emission Control Performance and Battery Performance. At the June 8th meeting, a plan of action for each of the categories was presented. Several of the actions listed in each category were complete, indicating that we had already taken some steps to improve performance on 19 Battery and 20 Battery.

Additional items completed:

PEC SYSTEM

1) The collector rail holes in the coke guide were sealed. The holes were to prevent coke dust buildup. The coke dust builds up and short circuits the electric power to the door machine. The dust will be manually cleaned.

2) The start of the pusher ram movement was delayed for 3 seconds after the PEC duct is opened to the fans. This time delay, in addition to an inherent three-second delay from coke compression, gives a six second total delay. This allows the PEC duct system to come up to full flow before the first coke falls into the hot car. Air movement in the PEC duct system requires a short time to equilibrate.

3) An inspection of the louvered fan dampers showed they had wear. New dampers are on order and are expected to be installed the end of September. The new dampers will decrease airflow resistance.

4) The S/D Engineering evaluation of the PEC is complete and their report is in the process of being issued.

Battery System

1) Repairs were made to the regenerator for 19 Battery A1 coke lved internal work on the regenerator. Several support bricks were taken out to work was innovative at Clairton. The repair so far has improved the pushing articular oven although the completeness of the repair is still being evaluated. It er crack is somewhere in the regenerator.

2) The bazooka backlog is eliminated. A new supplier was four zookas have been replaced.

3) A spreadsheet was developed that simplifies tracking of flue repairs are entered into the spreadsheet. This information is used to schedule ntenance record of each flue. This type of system will highlight flues with chronic d more aggressive repair.

4) Monthly flue temperature profiles were read for each Battery ue temperature profiles for 19 battery showed that 161 flues were 75° to 100° cool ture. As of August 12th, 128 of the 161 flues had been repaired. The July cros profiles showed an additional 77 flues below the aim. These were assigned to the l

5) June crosswall flue temperature profiles for 20 Battery showe 100° cooler that the aim. As of August 12th, 370 of the flues were repaired. Th mperature profiles showed an additional 134 flues below the aim temperature gned to the heaters for repair.

6) The coke temperature profile was manually measured for all inary evaluation of the data showed that as the average coke temperature increased ere was less opacity during pushing. Our Technical Center personnel made the g a 4-day test run. The test required a lot of manual manipulation and manual in ese results. For an example, they used a portable data collector and then transf puter. We are pursuing a permanent installation of the temperature measuring eq his is a valuable tool.

The attached graphs have weekly performance for pushing, travel, ance for the month of July. The values show our performance for the month of t many of the changes made to the PEC System and at the Batteries in late July. chieving a quarterly composite performance of 94% and believe that improve nance practices will get us there by first quarter 2000.

Sincerely,

W. C. Graeser
Manager
Environmental and Qualit

Cc: Sandra Etzel

Frank,

Please use the tin. :s and dates listed below for observationsof 19 and 20 Battery pushing and travel. The o server is to try to start the observation within plus or minus 30 minutes of the listed time. the observation cannot be started within this time frame, record a reason on the report she .

Bill Graeser
7/19/99

Month	Date	1st Observation	2nd Observation
July	20	8.0	17.0
July	21	16.5	17.0
July	22	12.0	18.5
July	23	12.0	13.5
July	24	9.0	13.5
July	25	9.5	13.5
July	26	8.0	10.0
July	27	12.0	18.0
July	28	7.5	18.0
July	29	7.0	8.5
July	30	10.5	16.0
July	31	7.5	7.5
August	1	16.0	16.5
August	2	7.0	15.5
August	3	8.5	17.5
August	4	8.0	13.0
August	5	13.0	17.5
August	6	12.5	14.5
August	7	9.5	14.0
August	8	14.0	17.0
August	9	8.0	18.0
August	10	8.0	10.5
August	11	8.0	10.0
August	12	16.0	19.0
August	13	8.5	17.0
August	14	12.5	17.5
August	15	13.0	13.5
August	16	7.0	13.0
August	17	9.0	10.0
August	18	7.0	19.0

cc: B. A. Clark